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ABSTRACT

A study examined how children's understanding and use of written language and graphic/constructive art are embedded in the social world of their classrooms and how they explore the potential of communication systems (specifically, what socio-psychological strategies they use). Subjects were 21 3- and 4-year-old children of faculty and staff at a large midwestern university, all in a classroom with a curriculum particularly supportive of young children's literacy learning. The children's self-selected literacy activities were videotaped, and the tapes indicated that social interaction was an important part of most events. As they talked with their peers and teachers, the children often adopted author and audience roles. The authors came to recognize each other as sources of inspiration and aid for their writing. Sometimes a child would co-author a text with either a teacher or a more experienced classmate, with the first author initiating and the assistant offering ideas from an area of personal expertise. Children and teachers constructed and used a great deal of shared knowledge about literacy. Extensive observation and analysis indicated that conversation played a crucial role in constructing literacy concepts. This systematic relationship between conversation and demonstration allowed children to learn about literacy, while writing their own texts inspired them to develop personal perspectives. (AEW)

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PRESCHOOLERS AS AUTHORS:

LITERACY LEARNING IN THE SOCIAL WORLD OF THE CLASSROOM

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Two 3-year-olds, Jared and Kyle, are at the writing table in their classroom. Jared is working on a Valentine for his mom. He has just completed a picture of himself, and turns the paper over. Kyle has not started a text, but instead has been watching and talking with Jared, who now begins to write, right to left, across the top of his paper. ( ). He starts a second line in the same direction ( ).

Watching intently, Kyle asks, "Jared? How come you always write your name backwards?"

Jared is left handed and he frequently starts writing on the right side of his paper and moves toward the left.

Tapping his paper Jared explains, "I don't! Sometimes I just write (different). " He moves his pencil right to left across the paper. "Then at the bottom I write it. Sometimes I write it at the top!" He points to the bottom and top of his paper as he speaks. He adds a third ( ), fourth ( ), and fifth line ( ), once again, right to left. Kyle continues watching.

When Jared finishes his text he reads it to Kyle, pointing to the print, right to left.(Line 1) "Once there was me, (Line 2) hiding in a prickle bush. (Line 3) I saw some hearts (Line 4) in a tree. (Line 5) Jared."

As he finishes reading, he picks up his pencil again and begins to write. On the right side of his paper, next to line 3 he writes an M, then adds another M below it, next to line 5. As he adds an O vertically between them, he says, "Mom." (Monday, February 3, 1986, Videotape 11)

Events such as this are common in many home and preschool settings where young children are given paper and pencil, and the freedom to experiment with art and print. As a result of recent research on literacy learning in the early childhood years, it is possible to recognize that Jared and Kyle have already built considerable knowledge about the content, processes, and purposes of writing and drawing. For example, we can see that the *content* (both illustrations and text) of Jared's story shares many features with the storybooks he has read. Jared demonstrates that he controls many aspects of the writing process such as top to bottom directionality, letter formation, speech/print matching, and revision strategies, and Kyle also demonstrates awareness of the directionality of writing. Moreover, throughout the half hour it took to complete this text, Jared keeps in mind his *purpose* for constructing it -- to give it to his mother as a Valentine. Like other preschool authors, Jared combines art, writing, and oral language to send his message, and engages in conversation with another participant as he works.

The identification of *what* children like Jared and Kyle actually know about literacy has been an important area of research during the last two decades (Teale, 1986), as has the identification of developmental changes in children's literacy knowledge. Researchers interested in preschoolers' writing have described general patterns or principles children use to construct written texts (e.g., Clay, 1975; Harste, Woodward, & Burke, 1984), patterns in spelling development (e.g., Beers, 1980; Bissex, 1980;

Bouffler, 1984; Harste, Woodward, & Burke, 1984; Read, 1971), patterns in the understanding, use, and awareness of other printed conventions (Clay, 1975), and patterns in the ways children combine and relate writing, art, and oral language (Dyson, 1983; Gardner, 1980; Harste, Woodward, & Burke, 1984). Additionally, researchers taking a socio-cultural perspective on literacy learning have demonstrated that what young children learn about the content, processes, and purposes of literacy reflects the social interaction patterns and uses for literacy of the various cultural (Heath, 1983), family (Taylor, 1983), and school (Cochran-Smith, 1984) groups of which they are members.

My focus in the present study, while not entirely separate from questions of what children know about literacy, has been somewhat different. In this study, I have been interested in observing *how* young children go about building literacy knowledge; that is, my interest has been in observing and developing theoretical descriptions of young children's literacy learning *processes*. The theoretical basis for this study, in addition to the research cited above has been a semiotic theory of communication (Deely, 1982; Eco, 1976, 1979; Halliday, 1978; Peirce, 1966). Because this perspective suggests that a similar process of meaning construction underlies the "alternate literacies" of writing and art (Harste, Woodward, & Burke, 1984; Parker, 1983), and because young children have frequently been observed to combine these communication systems in their texts (Harste, Woodward, & Burke, 1984; Gardner, 1980), in this study I have defined literacy broadly to include written language as well as graphic and constructive art.

In addition, because of the growing evidence that children actively employ a variety of cognitive strategies as they construct meaning through writing (Clay, 1975; Ferreiro & Teberosky, 1982) and that the nature and purpose of these strategies is specific to the social contexts in which they are currently writing (Harste, Woodward, & Burke, 1984) and in which they have previously learned about literacy (Heath, 1983; Cochran-Smith, 1984; Taylor, 1983), this study is also based on a socio-psycholinguistic perspective on literacy learning. Such a stance combines the psycholinguistic concern for identifying the cognitive processes and strategies used in language and literacy learning (Slobin, 1979) with the sociolinguistic concern for identifying the culturally-rooted routines and meanings in which literacy learning is embedded (Bloome & Green, 1984).

As Harste, Woodward, & Burke (1984) have suggested, a socio-psycholinguistic perspective has important methodological implications for the study of literacy learning. They point out that "in order to understand the cognitive and linguistic operations that take place in language learning and use, one must study these operations in light of the contexts -- situational and cultural -- in which that cognitive and linguistic processing occurs" (p. 146). To date, there have been only a few studies which have attempted to observe how young children learn literacy as they interact with others in their daily activities at home or at school. Most of our current evidence about the nature of the cognitive and linguistic strategies involved in literacy learning comes from observations of children's responses to specially designed literacy tasks. Ferreiro and Teberosky's (1982) use of a clinical interview method patterned after Piaget's investigations of young children's logico-mathematical knowledge, and Beers and Henderson's (1977) use of special spelling tests to determine the nature of children's spelling strategies are typical. Those studies which have investigated young children's literacy knowledge by observing them in their usual activities at home (Baghban, 1984; Bissex, 1980) or at school (Dyson, 1983), have most frequently focused on identifying literacy processes without systematically generating hypotheses about the role of the social context in literacy learning. On the other hand, when researchers have investigated the social context of literacy learning (e.g., Cochran-Smith, 1984; Dyson, 1984), they have usually chosen to focus on the social interactions in which literacy learning occurs without systematically investigating the effect of these interactions on the *process* of constructing literacy knowledge.

In this study, my aim has been to generate a theoretical description of children's literacy processes which includes the role of cognitive and social factors in this learning. This goal is reflected in the two broad research questions which have guided this study:

1. How are children's understandings and use of written language and graphic/constructive art embedded in the social worlds of their classroom?
2. How do young children explore the potentials of these communication systems? More specifically, what socio-psychological strategies do they use?

To investigate these questions it was important to understand children's perspectives on literacy events, to observe them in the course of their usual activities, and to understand the social context of these activities. To this end, I chose to use ethnographic techniques to observe children's literacy learning over an 8 month period in one preschool classroom. This paper focuses on the portion of this research aimed at

understanding the role of social interaction in children's construction of literacy knowledge. (For a discussion of patterns in children's individual literacy learning strategies, see Author, 1986).

Setting and Participants

The setting for this research was a daycare program which served the 3- and 4-year-old children of faculty and staff at a large mid-western university. Of the 21 children who participated in the research, 15 were the children of faculty or graduate students and 6 had parents employed in staff positions at the University. In September, 13 of the children were 3-year-olds and 8 were 4-year-olds.

This classroom was chosen specifically because the director and teachers had developed a curriculum which I believed to be particularly supportive of young children's literacy learning. A major aim of this program was to provide functional purposes for children to use literacy and a variety of audiences for their work. Each day during two self-selected activity periods, children were allowed to choose how, when, and why they would participate in literacy activities. At these times, choices included working at the writing table, the art table, the book area, the piano, or at other centers such as the block area or housekeeping corner. Typical of print-related activities during these periods were writing notes to parents and classmates, writing books to be shared with the class, creating sign-up sheets and signs, writing reminder notes, writing stories for the class newspaper, reading trade books with a teacher or friend, and reading and listening to books on tape. Children also constructed messages through drawing, constructive art, instrumental music, and written music.

Though many of these productions were unconventional by adult standards, the teachers respected and supported children's attempts at using literacy by asking them to read their written texts, to tell about their pictures, and to sing or play their musical texts. Further, they demonstrated their respect for children as authors/readers/artists, etc. by providing opportunities for public sharing of these texts in group times and in publications such as the class newspaper and by giving children responsibility for using print in important ways in classroom activities (e.g., writing name cards for the classroom pet show). Teachers provided literacy demonstrations by authoring their own written, artistic, and musical texts at the learning centers. They also acted as audience for the texts children were producing. In this way, children were encouraged to learn about literacy by using it and by watching their teachers and peers use it, and literacy instruction was embedded in informal discussions about in-process authoring

activities. Though teachers frequently provided children with a variety of types of information about literacy, these discussions grew out of the questions and comments children made as they worked on their own texts or watched others, rather than from teacher-directed group lessons about literacy skills.

Data Collection and Analysis Procedures

Data collection and data analysis were intertwined in this study. As Lincoln and Guba (1985) have suggested, in ethnographic studies "data analysis must begin with the very first data collection in order to facilitate the emergent design, grounding of theory, and emergent structure of later data collection phases" (p. 242). As seen in Table 1, this research proceeded through four phases in which the focus and techniques of data collection, the amount of time spent in the classroom, and the data analysis techniques varied. A brief description of these activities is provided below. (For additional details, see Author, 1986.)

Insert Table 1 about here.

Phase 1: Field Entry

In the first phase of research, lasting one month, I entered the classroom and focused on becoming familiar with the setting, negotiating my role with the children and teachers, determining the range and location of classroom literacy events, and deciding on a data collection unit. My major data collection techniques during this period were (a) participant/observation, (b) writing field notes, methodological notes, and theoretical notes after leaving the classroom, (c) collecting artifacts from classroom literacy events, and (d) conducting informal interviews with the teachers.

To facilitate my acceptance as part of the classroom community and to allow me to become familiar with literacy activities in all parts of the school day, I participated at the Center four full days per week in activities ranging from small and large groups, to "free choice" time activities, outdoor play, transitions, and trips to the library. Initially, I adopted a reactive field entry strategy (Corsaro, 1985) in which I entered activities and conversations only in response the children's or teachers' interactions. However, within the first two weeks I shifted to an interactive stance more like that of the teachers. That is, I talked with children as they worked at the literacy centers, I authored my own pictures, notes, books, etc., I read books, I facilitated children's work by helping them get needed materials and space for their work, and I mediated any problems which the children could not resolve by themselves. However, my role differed

from that of the classroom teachers in three major ways: (a) I rarely directed group activities, (b) I spent the majority of my time observing and participating in literacy activities at the learning centers, and (c) I consistently used a variety of techniques to record classroom events. Overall, the children viewed me as an assistant teacher.

During my first weeks at the Center I rarely took notes in the classroom, choosing to concentrate instead on building relationships with the children. However, I did make notes about the day's events during nap time, and again shortly after leaving the center. These field notes were completed and expanded each evening. I also recorded methodological notes containing my reflections on data collection procedures, and theoretical notes describing my initial questions and hypotheses related to literacy learning. In addition, I collected literacy products such as notes, letters, pictures, etc. by saving those the children gave me, and xeroxing others which I had seen produced. Throughout this phase I had many informal conversations with the teachers aimed at understanding their perspectives on the literacy learning of individual children and on classroom activities.

Data analysis during the field entry period primarily consisted of weekly reviews of field notes. From these reviews came two methodological decisions. First, because I had observed that children's activities involving writing, reading, drawing, and constructive art occurred most often at the writing table, art table, and the book area, I decided that I should concentrate subsequent observations on children's self-selected literacy activities in these areas during the morning and afternoon free choice times. In addition, since children's interactions with each other and their teachers during group activities served as important background for understanding self-selected text production events, I decided to observe how literacy was used in group activities as well. A second methodological decision involved the definition of a data collection unit. Because I felt I had the most to gain from defining *literacy events* broadly, I decided that I would observe children from the time they arrived at a literacy center until they left for another center to begin a different kind of activity -- a definition similar to the one Corsaro (1985) used to define interactive events in his ethnographic study of friendships in a preschool setting. In situations where one child left the center while others remained, or where children continued an activity in another area of the room, I decided to focus on the event most closely related to the hypotheses I was currently developing.

Phase 2: Identifying Patterns and Developing Hypotheses

The second phase of the study began at the start of my second month in the classroom and continued for three months. My focus during this period was on identifying patterns in the literacy learning of individual children and in the social interactions in which learning was embedded. In order to collect information on children's text production activities and social interactions during literacy events, I participated in the classroom 3 full days per week and began to use a variety of new data collection techniques in addition to those used during Phase 1. I began to record the literacy events in which I participated by jotting down brief field notes in the classroom, and by using audiotape and photography. I also began to use informal interview techniques to gain information from the children about their text construction processes, their literacy learning strategies, and their intended meanings for unconventional texts. During this phase I began providing the teachers with copies of my expanded field notes and the artifacts I had collected, and we began meeting on a regular basis for indefinite triangulation sessions (Cicourel, 1974; Denzin, 1978). In these meetings, and in informal conversations in the classroom, they responded to my interpretations of classroom events, and shared their own observations of children's literacy learning.

Data analysis during this phase consisted of bi-monthly reviews of my field notes, methodological notes, theoretical notes, and literacy artifacts and served three main purposes. First, I reviewed my methodological notes to estimate the obtrusiveness of the new data collection techniques, and to plan adjustments in data collection procedures. Second, I reviewed my field notes and artifacts to determine the relative representation of each of the 21 children and the communication systems of writing and art in the data. This information was used to guide subsequent data collection decisions so that the data would be as representative as possible. Third, I reviewed my field notes, artifacts, and theoretical notes to identify patterns in my observations, and to generate working hypotheses about literacy learning. To do this I used the constant comparative method as described by Glaser & Strauss (1967).

In using the constant-comparative method my first step was to reread each new entry in my field notes and to make marginal notations describing the category or categories which that event represented. All categories were generated from the data in this way rather than being selected *a priori*. When categories generated in earlier reviews were applied to new observation, I compared the new entry to

previous ones coded in that category. As I moved to each new entry, I followed a similar pattern of reading, categorizing, and comparing it to others. New categories were generated when needed. At the end of each review, I stopped to write a theoretical summary which described the properties of the new categories, and which speculated on the links between the patterns observed in the data. At the end of Phase 2, I conducted an extensive review of the categories and hypotheses generated in this fashion. This analysis yielded an inventory of almost 40 tentative hypotheses developed during the first 4 months of participant/observation. This list of hypotheses became the basis for theoretical sampling in Phase 3 of the study.

Phase 3: Theoretical Sampling

The primary focus of the third phase of data collection was the use of theoretical sampling to further develop and refine the hypotheses generated in the first 4 months of research. Using the inventory of hypotheses generated at the end of Phase 2, I determined which hypotheses already had a strong base of support in the data, and which ones needed to be explored further. I used this list as a basis for focusing my data collection during the next 2 months. During this period, I continued to participate as a teacher/researcher 3 days per week, and to use the data collection methods previously introduced. I also began to videotape classroom literacy events, focusing primarily on self-selected literacy events at the writing table, art table, easel, and book area, and on teacher-directed group time activities.

Data analysis involved weekly reviews of field notes and videotapes to determine the types of events which should be targeted as high priority for theoretical sampling the next week. The use of the constant comparative method for generating grounded hypotheses continued as in Phase 2. Methodological notes were also reviewed to estimate the obtrusiveness of the videotape equipment. Though few problems were observed after the first few days of videotaping, minor adjustments were made to minimize the effect of the equipment on children's usual literacy activities. After the initial adjustment period, comparison of the video data to earlier audio data revealed no differences in children's interaction patterns.

Phase 4: Field Exit

During this phase, the focus of my research efforts turned from data collection to data analysis. Over a period of 2 months, I gradually reduced the amount of time I spent in the classroom, finally settling on 2 mornings per week. Using field notes, audio tape, and collection of artifacts I focused my attention on

collecting data which would support, extend, or challenge the patterns I was pursuing in data analysis. Also during this period, I conducted exit interviews with the teachers to discuss the theoretical beliefs guiding their curriculum. We also continued indefinite triangulation sessions to discuss our observations of the children's literacy learning.

During these last months in the classroom, and continuing after I withdrew from the setting, data analysis involved transcription and microsociolinguistic analysis of the videotape data, as well as additional analyses of the field notes and artifacts to refine hypotheses about literacy learning. (See the Appendix for the transcription conventions used in the examples included in this paper.) My first focus in this analysis was the role of social interaction in the literacy learning process. After repeated viewings of the 50 events videotaped at the writing table, I developed seven categories to describe patterns of participation during literacy events at this center. I refined these categories by transcribing three events in each category, and by conducting a microsociolinguistic analysis of the speech styles used by adult and child participants. Similar procedures were used to determine the fit of these categories for the 22 events videotaped at the art table. From these analyses I identified participants' roles in literacy activities, and developed hypotheses about the role of social interaction in literacy learning.

A second aim of data analysis was to refine my hypotheses about the nature of children's individual literacy learning processes during these events. To this end, I first created an inventory of my existing hypotheses and recorded instances from the data which supported them. The results of this review suggested that I take two approaches to data analysis. First, I tracked individual children through my field notes, artifacts, audiotapes, and videotapes to observe how their learning progressed across time. This procedure served as a thorough review of all of the data and allowed me to identify themes in their learning. Second, I decided to refine and expand my hypotheses about literacy learning processes by in-depth study of the data from which each hypothesis was generated. Though I used data from all phases of the research, I found the videotape data most helpful in allowing me to form new insights because it allowed me to see children's text production processes, to observe their physical activities, and to hear their comments. Through repeated viewings of the events related to each of my hypotheses, I generated more detailed descriptions of literacy learning, and generated grounded hypotheses about the nature of this process.

A final task which informed my data analysis, a member check (Lincoln & Guba, 1985), occurred after the completion of the first draft of the initial report of this research (Author, 1986). Since the age of the children participating in this study prevented sharing the report directly with them, I asked the teachers and director of the Center to respond to my description of life and learning in this setting. They expressed strong support for my accounts of classroom events, and provided suggestions for minor changes. This information was used in revising final accounts of the research.

Trustworthiness

The trustworthiness of the conclusions drawn from this study has been safeguarded in a number of ways. In an attempt to increase the credibility of my conclusions I have engaged in a prolonged period of participant/observation, triangulated data collection methods and sources, met frequently with a peer debriefer, used the constant comparative method of data analysis, used the data collection methods of audiotape, videotape, and collection of artifacts, and completed a member check at the end of the research process. Reliability of this research has been strengthened by the use of overlapping methods of data collection and by systematic procedures for observing and collecting information about children's literacy learning.

Observed Patterns:

The Nature of Social Interaction in Children's Self-Selected Literacy Events

As indicated above, data analysis in this study involved not only identifying patterns in the data, but also generating theoretical propositions aimed at describing the literacy learning processes of the 3- and 4-year-olds who participated in the study. This section describes five data patterns which demonstrate the the relationships between social interaction and children's literacy learning in this classroom. These patterns relate to (a) the types of social interaction involved in self-selected literacy activities (b) the nature of author/audience conversation during individual text production events, (c) the manner in which children used other authors' demonstrations in their texts, (d) the nature of author/co-author conversation during the production of shared texts, and (e) the nature of the shared literacy knowledge formed by members of this classroom community. Following the description of these patterns, I will discuss the theoretical propositions I have generated from this data to describe the role of social interaction in literacy learning.

General Patterns of Social Interaction

In a classroom where social interaction and cooperative learning are encouraged, it is not surprising that children and adults at the writing and art tables are almost always engaged in a social exchange of some kind. In a classroom where literacy activities are highly valued, it is also not surprising that the areas devoted to text production should function as important centers for social interaction. In this setting, most of the students visited the writing table or art table at some time during the two long work periods to produce a text or to interact with others who were writing or drawing. Conversations at the literacy centers focused around four major topics: (a) authoring, (b) social relationships, (c) access to space and materials, and (d) other personal concerns and interests. Through conversation, participants accomplished a variety of related social and cognitive goals.

Since one of my purposes in this study was to describe how literacy learning was embedded in social interactions, an important goal was to unravel this tangle of interactions in order to see its role in literacy learning. As a first step in this process, I described the ways adults and children participated in literacy events at the writing and art tables. My goal was to identify the patterns of participation which were common across literacy events and to describe the types of interactions which characterized them.

As a participant in this classroom, I noticed that different types of social interaction occurred at each of the literacy centers, depending on the types of projects the participants had underway, and the types of social agendas they pursued. To further develop the general hypothesis that children's self-selected literacy activities were embedded in several different types of social events, I chose 10 videotapes of activities at the writing table which seemed to represent widely varying types of interactions. From repeated viewings of these tapes I generated a list of seven participation patterns which was subsequently refined and tested on the 40 remaining events videotaped at the writing table. Though I was prepared to add categories to describe interactions at the art table, the seven categories generated from the writing table data proved general enough to describe the interactions related to the production of graphic texts at the art table, as well.

Because activity at each of these centers almost always involved both text production and social interaction, I chose to use a combination of social and text production features to identify these patterns. As seen in Table 2, the first four patterns describe interactions occurring when authors gathered to work

and talk about their *individual* texts. The fifth and sixth interaction patterns describe participants' attempts to coordinate their activities so that shared texts resulted, and the seventh pattern describes encounters between authors and persons not working at the center.

Insert Table 2 about here.

Overall, text production was the focus of interaction in most events occurring at the three literacy centers. As children and adults participated at these centers they frequently shifted stances from *author* to *audience*. In this study, I identified participants as *authors* when they produced their own graphic or written texts, and as *audiences* when they observed the texts or text production processes of others. In some activities, participants also worked as *co-authors* to create a common activity or text. Each of these roles (i.e., author, audience, and co-author) was taken by both children and adults.

Patterns in Author/Audience Conversation

Because the focus of this study was on literacy learning, I was particularly interested in the manner in which children and adults played the roles of author and audience in these events. As a participant and researcher it was obvious to me that conversation was an important part of both roles. Therefore, in order to describe more specifically how participants affected one another's text production and literacy learning, I conducted a microsociolinguistic analysis of the conversations occurring between authors and their audiences. Since there had been considerable work on the interactive styles used in conversation between children and adults and between peers in preschool settings, I developed a tentative list of speech styles from the work of Cook-Gumperz (1981; Cook-Gumperz & Corsaro, 1977) and Corsaro (1977, 1979), and then modified it to account for the types of exchanges occurring in the centers where I focused my observations. This analysis allowed me to identify more specifically the interactive roles of participants, and to draw some conclusions about the similarities and differences in the roles taken by adults and children.

Through microanalysis of conversations occurring during each of the six major types of literacy events, I concluded that authors and audiences had characteristic *conversational* styles. With a few exceptions (e.g., clarification requests), microanalysis of adult and child speech in these events indicated that styles of talk were more related to the roles participants played, than to their ages. By comparing the range of speech styles used by children and adults as they acted as authors and audiences in the sample of

events selected for microanalysis, I observed that in situations where participants' roles were reversed, so were many features of their talk. Thus, the author-audience interaction patterns listed in Table 3 describe the ways both adults and children played these roles. Additional information about these patterns is provided below.

Insert Table 3 about here.

In this classroom, as authors sat together at the writing and art tables, they often spontaneously entered the flow of conversation to *talk about their work*. Sometimes they announced their intentions for their products or processes, as Christina did in one event when she announced that she was going to make a map. At other times children interrupted the conversation to excitedly share their newest discoveries, as Ginny did when she first produced a "dot rainbow." On this occasion she had been drawing rainbows on a piece of scrap paper covered with small printed circles. As she colored in the dots around the outside edge of the rainbow, she recognized that she had produced a new form. "Hey look! Hey Debbie!" she called to me. "This is a dotted orange rainbow. It's a dot rainbow!" In this classroom authors often talked about their work with those around them.

In the same way, audiences often *spontaneously asked questions of authors* working nearby in order to understand their work better or to follow up on hypotheses they were forming about the content of the text or the text production processes being used. Exchanges like to following one between Victor and Christina were common.

Example 1: Drawing a Tall Father
Monday, January 20, 1986 (VT 3)

Victor: What you makin'? Your daddy?
Christina: My mother. My mother. [She points to the already completed figure.] Then I'm makin' my daddy with two shoes. [She begins a second figure by drawing shoes.]
Victor: Why is he all big?
Christina: Because he's tall!
Victor: Did he eat too much -- Did he eat some food, too much?
Christina: No!
Victor: Oh! Did he just grow?
Christina: (I guess. I don't know.) Here's his body. Then his neck. [She draws these parts as she talks.]

In this case Victor's stance as audience allowed him to check his interpretation of the subject portrayed in Christina's text, and then to explore the relation between graphic size and physical size.

Audiences also *sought information about an author's text* by offering tentative interpretations in the form of statements rather than questions. For example, in one episode at the writing table I offered my guess about Ginny's text as a way of encouraging her to talk about her work: "I bet Ginny is making rainbows with sunshine. Is that right?" Though both questions and statements often presented the audience's perspective on the text, authors in this classroom maintained ownership of their texts; that is, as authors they maintained the right to describe their intentions and the outcomes of their literacy activities. In this instance, Ginny responded, "I'm making rainbows with a spider. And this is the spider web and these are rainbows. And the rainbows don't like the spider web." As these exchanges between Ginny and I (and between Victor and Christina) illustrate, authors *responded to audience questions* and interpretive statements by providing information about their texts and authoring activities, and by discussing the hypotheses raised by the audience. In some cases these conversations led authors to expand, clarify, or revise their texts.

Audiences also sometimes *offered solicited or unsolicited suggestions* about authors' text production activities. For example, when Sarah told me that she had written to Susie, one of her teachers, several times but had received no reply, I suggested that she write Susie once more to remind her to answer her letters. In another instance, I used a suggestive statement as Christina hung her map up over the writing table: "You better write some words to tell all the friends [children] what that is." In neither case did the girls act on my suggestions. In this classroom, all authors, whether adults or children, understood that they could choose to act on audience suggestions according to their current interests and goals for their texts.

Another interaction pattern I observed in the data, was the tendency for authors to *describe their in-process authoring activities* through a kind of running monologue. This served to keep their audience informed about their activities, and was more common when authors were aware that someone was particularly interested in their work. For instance, in the example used in the introduction of this paper, Kyle spent almost 15 minutes watching Jared work on his picture and story. When Jared finished writing, he held his paper up for Kyle to see, then read the message. When he finished, he added a word, naming the letters as he wrote. Through most of this event, Kyle watched without comment.

Descriptive monologues of this type often served to maintain social contact with an observer, though no immediate response was required or expected from the audience.

Two other interaction patterns involved authors' requests to their audiences for assistance or evaluation. When authors encountered text-related problems, a frequent strategy was to *request assistance* from someone working nearby. Because authors had, on other occasions, acted as audiences for the work of their peers and teachers, they were able to use their knowledge of the expertise of other participants in making these requests. For instance, the conversation in Example 2 occurred after Kyle had watched Jared draw hearts and write words on his own paper.

Example 2: "Make My Heart"
Monday, February 3, 1986 (VT 11)

After trying to draw a heart, Kyle asks "Could you please make my heart?"
"Well, hearts go like this!" Jared tells him as he uses his finger to trace the shape of one of the hearts on his paper.
"I mean, I can't do that," Kyle answers.
Jared looks at Kyle's paper. "Oh, you made it the wrong way!" He draws a heart as Kyle watches.
"Put the inside the hearts, Kyle requests. "Would you write K?"
Jared begins to write and say, "K."
"Y L E," Kyle prompts as Jared finishes writing the rest of the letters.

As this example illustrates, one part of the author's role is learning how to make requests for help so that they are understood, and one part of the audience's role is listening and observing carefully in order to provide needed assistance.

Not only did authors make requests for assistance, but they also sometimes *asked their audience to evaluate their work*. Sarah's question to Andy was typical: "Andy, don't you think this rose is pretty?" In this case she received no response, because Andy was only stopping at the writing table briefly as he moved to another center. Depending on the situation, children received both positive and negative feedback from their peers. However, when adults served as audience, children almost always received positive evaluations of their texts. Audiences sometimes also *offered unsolicited evaluations* of the texts or processes they were observing. Adults frequently included positive evaluations (e.g., "What a neat idea!") as part of their conversation about children's texts. Though it was less frequent, when children acted as audience for their peers and teachers they also spontaneously offered positive and negative evaluations of their texts (e.g., Sarah to Ginny: "That's pretty curly hair").

Evaluative statements were used by both children and adults to signal support for the author, as much as to give approval for their work.

Exchanges of texts between authors and audiences, like evaluation requests and statements, served an important social function at the writing and art tables. Authors' gave their texts to others not only to send them messages, but also to initiate positive face-to-face interactions about their texts. A common activity at the writing and art tables was the production of texts to be sent as "mail" in another participant's classroom mailbox. The usual interactive routine involved the author in completing a note and notifying the recipient that he or she "had mail." Recipients would then retrieve the notes from their mailbox and talk with the author about them -- often asking them to read it. This routine was used by both adults and children as a means of starting positive interactions with others. As with requests for evaluation, children could be most sure of positive responses from adults.

One final pattern noted in the speech of authors, involved *self-directed talk* rather than conversation directed toward an outer audience. In some cases, I observed that both adult and child authors served as their own audiences as they talked to themselves. This pattern occurred most frequently when they faced a particularly difficult problem, as Andy did when he struggled to use the stapler to make a book out of several pictures he had drawn.

Example 3: Stapling a Book
Tuesday, February 4, 1986 (VT 11)

After stapling along one edge, Andy opens his book, only to find that the middle page is not caught. He scratches his head and adds another staple. When he checks the results again he notices something surprising -- the middle page is attached to the others, but from the side of the book which is usually left open.

"Wait a minute," he says to himself. "Wait a minute. Look!" he says softly as he peers intently at the book.

In this case and in others, authors used self-directed speech to express their private thoughts, and to help them organize their authoring activities.

As the preceding discussion illustrates, the conversational roles of authors and audiences were interdependent. By definition, when participants talked with one another about on-going text production activities, they assumed the role of either author or audience, and assigned the opposite role to their conversational partner. But these roles were related in another way as well; that is, participants usually shifted stances from author to audience within the same event as they authored their own texts and talked

with others about the texts being constructed around them. Therefore, audiences listened and watched using their own experience as authors. Authors wrote and drew using their experience as audiences. Regardless of stance, participants were gathering information which could be used later in their in own text production activities and in their interactions with other authors.

Patterns in Children's Uses of Demonstrations

A third pattern reflecting the influence of social interaction on children's literacy learning involved the manner in which children used the *demonstrations* of other authors in their own texts. Smith (1982) has described demonstrations as acts and artifacts which display "what can be done and how" (p. 101). My observations in this study indicate that literacy demonstrations also showed children *why*-- for what purposes -- they might use writing and art, as well. When participants at the literacy centers authored their own texts, talked about their work, or left physical traces of these activities in the form of books, pictures, etc., they were providing demonstrations for their audiences.

By tracking the manner in which children at the art and writing tables linked their texts to those of other authors, I identified two ways in which children used these demonstrations. In the first and most frequently observed pattern, children used content or processes demonstrated by other authors as the beginning points for their own texts. As they worked on their pieces, they recognized the potential for combining some elements of the demonstration with elements from their own experience so that the result fit the text world they were creating. That is, they used demonstrations to help them generate ideas for topics or processes which would later be modified, expanded or revised as they constructed their own texts. In these cases, children used demonstrations as *springboards* for developing and extending their existing ideas, and for helping them explore new aspects of literacy. Example 4 illustrates how Hana and Christina used my demonstration as a springboard for exploring exclamation points in new ways.

Example 4: Exclamation Points
February 25, 1986 (VT 28,29)

One of the nap teachers is in the hospital, so we are making a "Get Well" book for her. Kira watches as I write my message, "Dear Carol, We hope you get well SOON ! ! ! (Artifact 4A).

As I write the last word, I read the letters out loud. "S O O N, exclamation point, exclamation point, exclamation point. Because I want her to get well soon!" Hana asks me what it says, and I read the message again.

Kira struggles with the word and adds, "And this is extamotion point. How come?"

"Put three cause it's big letters Hana suggests.

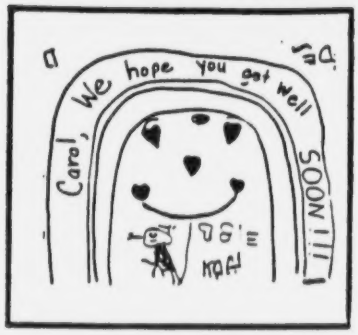
"Because I want her to get well really, really, really soon. I want to emphasize that," I explain.

As we work Kira brings up exclamation points again, and we discuss them. Then Christina who is working at the other side of the table joins the conversation. "I have to put too much exclamation points," she says as she begins to write exclamation points under her name. (Artifact 4B) (6) "Look, Debbie, look! I did just like you did!" She adds more exclamation points.

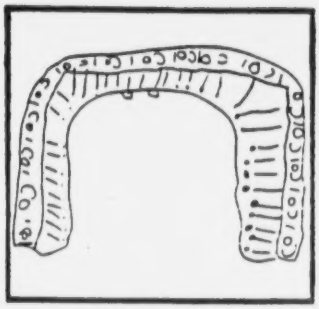
Now Hana begins her picture for Carol. (Artifact 4C) When she is finished she shows it to Susie, one of the classroom teachers. "Carol's really gonna like this one," she says. "There's a question mark -"

"Exclamation point," Susie corrects.

"--exclamation point because I really went her to get well quicker!"



Artifact 4A



Artifact 4B

Artifact 4C

In this example, Christina and Hana produce texts which are related to, but not limited to my demonstration of "what they might drew." Christina uses my idea of writing inside a rainbow, and the element of the exclamation point, but combines these elements with her own content (i.e., her name) to construct a new message. Similarly, Hana's text shares with mine the elements of rainbows, hearts, and exclamation points, but each has been used in new ways. In fact, both girls have given the exclamation point a decorative as well as a message function -- a use not foreshadowed in my demonstration.

While children most frequently used demonstrations as starting points for their texts, in some instances they tried to *reproduce* as much of the demonstrated content and processes as possible in their own work. Reproductive uses of demonstrations are illustrated in Example 5 below.

Example 5: Music and Robots
Tuesday, February 25, 1986 (VT 28)

Working at the writing table, Katie has just written 4 blue quarter notes on the left of the first line of staff paper. She stops to look at her work and then selects a piece of stationery with robots printed across the top. She places the stationery on the right side of the staff paper and uses the blue marker to carefully color in the body of the first robot on the left. (1) "OK," she says to herself as she finishes. She pulls the cap from the end of the marker, replaces it and chooses a red marker. Christina has arrived at the table a moment before and watches her draw four red quarter notes next to the blue ones.

Christina carefully draws 2 orange quarter notes, then begins a third. When she runs into trouble she expands it into a scribble which fills the rest of the page. She lays this paper in front of Katie. (2) "Look!" she says.

(3) "(* * *) but that's not pretty," Katie replies as she puts the paper back at Christina's place and continues her work. Now she uses the red marker to color the square in the center of the robot's chest.

With Christina watching, Katie continues to alternate between drawing notes and using the marker to color sections of the robots. She uses green, orange, and yellow. (4) After finishing the yellow notes she rubs her hand quickly across the music and then begins to point to the notes and sing, using the tune of the first line of "Hark the Herald Angels sing." She tells Christina, (5) "Then I have to say, 'La la la la la, la la, la, la'". This last she sings to the tune of the "fa la la la la" phrase of "Deck the Halls." She selects a brown marker. (6) "I'll do it with brown. I'll do it on this robot. I'll put it on his tummy," she says, pointing to the second robot. (7) "First the tune." She draws brown notes and then colors the robot.

Now Christina chooses some robot paper and staff paper. She arranges her papers just as she has seen Katie do--staff paper on the left and robot paper on the right. She begins by drawing two blue quarter notes. Next she colors a section of the left-most robot. Then she closes the marker and goes to get the can. She chooses orange next and writes two orange notes and colors the robot's face.

Their work continues. Christina alternates between drawing notes and coloring robots using green, then brown, orange, blue, yellow, green, and yellow again. Katie is now carefully coloring entire robots blue, red, orange, purple, and yellow without getting out of the lines.

At clean-up time Kyle stops to watch Christina. (11) "What are you making?" he asks her.

(12) "What Katie was making," she replies.

(13) "Did Katie make some like that, too?" I ask, joining the conversation as I help straighten the table.

(14) "Yeah."

(15) "What's it say?" I ask.

(16) "No! It doesn't say anything!" she answers.

(17) "What does it do then?"

(18) "It's -- That's musical notes."

(19) "Oh! so its a tune then."

In this event, Christina reproduces as much of the content and process of Katie's demonstration as possible. She carefully observes not only *what* Katie is writing and drawing, but also *how* she is accomplishing it. When Christina begins her second piece of music, she makes each group of notes a different color just as Katie has done. She also uses Katie's procedure of writing notes then coloring a portion of a robot before putting the cap back on the marker and choosing another color.

In this classroom there was no injunction against "copying", neither was there encouragement to stick closely to the demonstrations presented by others. Instead, children were free to choose whether, and how, they used demonstrations. I observed that children often chose to use demonstrations conservatively when they were beginning to explore new content or processes, when their work had been negatively evaluated by another author, and when they wanted to form friendship relationships with other authors at the table. In most other cases, they selected, modified, and expanded elements of the demonstration as described above. As children worked together, they came to see their peers and teachers as resources for help and ideas. However, children's uses of demonstrations ranged from attempts at reproduction to

radical transformation and synthesis of demonstrated elements. In the social context of this authoring community both were accepted strategies for text production.

Patterns in Author/Co-author Conversation

A fourth data pattern which helped to describe the ways social interaction affected children's literacy learning involved events where authors agreed to work together to co-author a single text. These events were much less frequent than those where participants authored individual texts, and were usually initiated by adults. The excerpts presented below are typical of adult-initiated events of this type.

Example 6: *It Didn't Frighten Me*
Wednesday, February 19, 1986 (VT 24)

Earlier in the week, I brought *It Didn't Frighten Me* by Janet Goss and Jerome Harste (1981) to share with the class. Since the children have been reading and rereading it with great enjoyment, I decide to write my own version of this book when I join Kira, Victor and Tokku at the art table. I begin without comment.

(2) "Hey Victor, wanta help me write a page in my book? I'm writing an *It Didn't Frighten Me* book." He comes over to see what I'm doing. (3) "What kinds of things should I put in my tree?" I ask, showing him page 1.

(4) "A bear!" Kira suggests.

(5) "Write a dinosaur," Victor says.

(6) "The bear," Kira repeats.

(7) "Write the dinosaur," Victor insists.

(8) "Write the words that say dinosaur?" I ask.

(9) "Well, just write the dinosaur," he repeats pointing to the tree already drawn on the page.

(10) "Oh! Write -- draw a picture of him?"

(11) He nods his head.

(12) "Hum." I pause, then I quickly reread the text, running my marker under the words. "One pitch black very dark night, right after Mom turned out the light, I looked out my window only to see a -- Should we tell what color dinosaur it's gonna be?"

(13) "Um, purple," Victor decides.

(14) "OK, a purple dinosaur up in my tree." Both Victor and Tokku are watching as I write.

(15) "Write the dinosaur", Victor repeats. He chooses a purple marker and hands it to me as I finish the words.

(16) "Will you write the dinosaur? I can't. Write the dinosaur," Victor says.

(17) As I begin to draw, I suggest, "I'll draw this picture, you think about what you wanta draw on the next page."

(18) "You draw the dinosaur," Victor repeats as he leans over the book.

^ ^ ^

(29) "Kira, what should I put on my next page of my *It Didn't Frighten Me* book ? I have a purple dinosaur." I hold the first page open so she can see. Then I turn to page 2 and read, "One pitch black very dark night right after Mom turned out the light, I looked out my window only to see a -- "

(30) "Um, I want only to do the end. I like the end," she tells me. Kira particularly likes the way the published version ends with an owl appearing as the one character which frightens the boy in the story.

^ ^ ^

Christopher returns from the bookshelf carrying the published version of *It Didn't Frighten Me*. Opening to the second picture, he says (36) "There! There."

I look at the book. (37) "Oh! The goblin. That would be fun. We can put a goblin on --"

But Christopher is gone. He leaves the table following Kira and calling her name. (38) "Kira! Kira! The goblin! The goblin!" When she finally stops to look, he shows her the book.

She calls from the next table. (39) "The goblin, the goblin, Debbie!"
(40) "OK, maybe I'll put that on the next page," I respond as I continue to write.
^ ^ ^

Work on pages 3 and 4 continues with similar negotiations about the content, pictures, and roles each of us will take. Kira looks in the published version and chooses a purple witch for page 3. As I write, Christopher talks about the differences between this witch and the one in the *Wizard of Oz,* which has been on television the night before. For page 4 Christina chooses a "dogo" dinosaur. I ask her how to spell "dogo", and she dictates DODO. However, later in the afternoon when we are rereading the book she tells me it should say "dogo" instead of "dodo", and we change the spelling to "DOGO". I tell her I don't know what a dogo dinosaur looks like so she also draws the picture. While she is drawing, Mary tells us it is time to clean up. I begin straightening the table, and suggest that Christina also finish writing the text. As I leave the table to put the published book back on the book shelf, Christina calls me back. She then uses the book to help her write the last phrase: "It didn't frighten me!" Four pages are complete as we go outdoors.

In co-authored events, a participant acting as "first author" (usually the adult) took responsibility for launching and supporting the project in the follow the ways:

(a) The first author formed a rough idea for the text, introduced the idea to others, and requested their participation as co-authors. (e.g., my initiation of the *It Didn't Frighten Me* book, and requests that children join the project.)

(b) The first author coordinated the contributions of the co-authors so that the text would be cohesive and so that opportunities to participate were shared. (e.g., my attempts to structure the text like the original by including the color of the characters at (12) and my choice to include a wide variety of children in the project.)

As participants formed their own visions for how the text should be constructed, responsibilities became increasingly more shared and the organizational function of the first author's role became less important. Over the course of the event presented above, children moved from making suggestions in responses to my requests for their help, to making unsolicited suggestions which expanded the text in new directions. As ideas were traded more freely, the responsibility for writing and drawing became more shared as well. As children observed others making additions to the text, they were able to get a better idea of the form and content of the project underway, and to propose their own ideas as possible directions for the text.

Though the co-authors' roles varied depending on their familiarity with the project and their areas of expertise, in general, they worked much as they did when they authored their own individual texts. (See Table 3.) Two aspects were added to the co-authoring role, however.

(a) Co-authors overtly negotiated their participatory roles throughout the event. (e.g., Kira's suggestion at (30) that she help with end of the book rather than page 2.)

(b) Co-authors tried to convince their colleagues that their suggestions would be good additions to the text. (e.g., Christopher's efforts at (36-40) to convince Kira and me that page 2 of our book should contain a goblin like the published version.)

In the process of co-authoring a text, the participants developed ways of working together which allowed them to request the participation of others, to request advice and assistance with specific textual problems, to offer their own ideas for the text, to argue for the inclusion of these ideas, to negotiate participatory roles they felt comfortable with, and to validate and support their co-authors' work by building off it as they made their own suggestions.

Patterns in Shared Literacy Knowledge

A fifth data pattern which informed my effort to understand the role of social interaction in literacy learning was my observation that the children, teachers, and I had built common understandings about literacy events. Halliday (1975) has termed the part of the meaning potential which language users associate with a particular context of situation the *register* for that event. In this setting, teachers and children had formed shared registers for literacy events which included what types of activities were appropriate, how these activities could be accomplished, and what purposes literacy might serve in this classroom.

This pattern was most easily seen by examining the range of genre and content themes children selected for the texts they produced at the writing and art tables. For example, at the writing table common genre for texts were surveys, newspaper articles, picture books, wordless books, signs, song books, musical scores, maps, personal letters, signatures, reminder notes, sign-up sheets, and sign-in sheets. Texts produced at the art table were most commonly identified by the children as pictures, hats, bracelets, kites, machines, and tickets. At both centers, texts frequently shared the content themes of rainbows, snowflakes, hearts, stars, spiders, bears, Cookie Monster, the Wizard of Oz, holidays, Voltron, friends, family members, dinosaurs, and animals. The shared nature of children's knowledge about "what might be said" and "how it might be said" at these centers was particularly obvious to me when I compared these lists of frequently observed content and genre with my observations of students in other preschool classrooms. For example, at this Center music writing was part of children's shared register for literacy events at the writing table, and as I participated in this room, it became part of my register as well -- even though I had never seen preschoolers engage in this activity before. On the other hand, activities I had frequently observed in other preschools, such as writing the "ABC's", occurred very infrequently in this classroom.

As I became a part of the classroom community, many other indicators of this shared knowledge became apparent. I observed that all participants, including myself, became so familiar with the characteristics of other class members as authors and audiences that we could use this knowledge to tailor our texts to the preferences of our friends. For example, when a group of children and teachers gathered at the art table to make pages for Gibson's "Goodbye Book" on the morning he was to move to the older children's classroom, much of the conversation centered around his likes and dislikes. Danny reminded Sarah that Gibson did not like black -- a fact Gibson had demonstrated frequently by rejecting texts constructed with black crayons or markers. Other participants used their shared knowledge about Gibson's preferences to select the themes of spiders, hearts, and stars for their pages. Spiders had been a central theme of much of Gibson's work some three months earlier, and hearts and stars were two of his current interests. In this instance, participants had built shared understandings that the *content* of a Goodbye Book should be the honoree's favorite things, since the *purpose* of such a book was to show affection by creating something their friend would like. In order to successfully carry out their intentions, they used knowledge about literacy *processes* built in previous events.

To summarize, I observed that participants in this classroom had become a "thought collective" (Fleck, 1979) which shared a great deal of literacy knowledge. Their shared literacy registers included knowledge as specific as understandings of the personal preferences of other authors or the routines associated with particular literacy tasks, and as general as knowledge of the general participation patterns which were acceptable at each center. My observation of the text production activities of children and teachers in this classroom suggested that they had formed shared knowledge of (a) the communication systems being used, (b) the messages which were communicated, (c) the characteristics of their colleagues as authors and audiences, (d) the socially defined uses of literacy in this setting, and (e) the social values placed on literacy activities in this authoring community.

Summary

To summarize, analyses of my field notes, children's literacy products, and audio and video tape recordings of children's self-selected literacy activities indicated that social interaction was an important part of most events in this setting. Data analysis revealed four additional insights about the nature of the social interaction surrounding children's literacy learning.

First, as children talked with their peers and teachers at the art and writing tables, they frequently took on the author and audience roles. In these conversations, each participant provided the other with a considerable amount of information about their interpretations and understandings of literacy events, and children and adults played these roles in a similar manner.

Second, in the process of working together, authors came to recognize one another as sources of help and ideas for their text production activities. They frequently made use of the demonstrations of other authors in their own texts.

Third, I observed that children sometimes also worked with adults or more experienced peers to co-author a shared text. In these events the "first author" initiated and helped to launch the project with the help of co-authors who negotiated participatory roles which fit their areas of expertise. As co-authors constructed their own vision for the developing text, they gradually took on more responsibility in the production of the text.

Fourth, members of this classroom community (i.e., the children, the teachers, and I) constructed and used a great deal of shared knowledge about literacy. This knowledge reflected the content, processes, and purposes of shared literacy events in this classroom.

While these patterns help to describe the *nature* of the social interaction in which literacy learning is embedded, they fall short of presenting a unified perspective on the *role* of social interaction in children's literacy learning processes. In the next section of this paper I will discuss my grounded hypotheses about the implications of these observations for a theory of literacy learning.

Theoretical Implications:

The Role of Social Interaction in Literacy Learning

Exchanging Meanings Through Conversation

My analyses of children's self-selected literacy activities in this classroom indicated that conversation and demonstration were integral parts of these events and that they had important impacts on children's texts. Conversation served to negotiate access to space and materials, to negotiate social relationships among participants, and to share personal experiences on a variety of topics. But most important for this study, conversation served as a means by which participants expressed the meanings they were forming as they authored their own texts, and as they observed the demonstrations of other authors. As participants exchanged these interpretations in conversation, the result was the construction of shared meanings and an awareness of gaps between their perspectives and those of other members of their authoring community.

These observations have led me to hypothesize that author-audience exchanges are important literacy learning opportunities for both parties. For the *audience*, these interactions provide opportunities for observing demonstrations of the uses of literacy products and processes in contexts that are familiar and understandable. In this classroom, these contexts are familiar because the participants have a long history of interaction with one another. Children and teachers have built shared understandings of this context and, thus, a shared meaning potential related to it; that is, they have a stock of knowledge built in past events which describes interactions at the literacy centers, potentially appropriate uses for literacy, and the personal characteristics of their colleagues. When they play the audience role they are able to use this knowledge to make predictions about other authors' work.

However, audiences are not the only ones learning about literacy through conversation. Their comments and questions have an important effect on literacy learning for *authors* as well. Hearing an audience's response allows authors to see what interpretations others attach to their texts. Sometimes these interpretations match their intended meanings very closely. But on other occasions the audience's interpretation comes as a surprise. Sometimes audience interpretations link the author's text to meanings which they have not considered relevant before. When this happens the audience plays an important role in helping authors expand the meanings of their texts. On other occasions audience interpretations serve

as anomalies because they are at odds with the author's intentions. Conversation heightens the probability that authors will become aware of these differences and provides, at the same time, a means for exploring them.

Halliday (1975) suggests that a child is able to create meanings about interactive events because "there is a systematic relation between what he hears and what is going on around him" (p. 141). That is, the choices speakers make when they form an oral text are always related to what is going on (the field), the communication system chosen and the role it plays in the event (the mode), and the social relationships of the participants (the tenor). As children have numerous opportunities to experience oral texts related to a particular context of situation, they are able to build for themselves meanings about the events as well as language which expresses those meanings. They are able to associate a part of the meaning potential --a register -- with that particular context of situation.

The relationship between the creation of graphic texts and the context of situation is no less systematic. Both child and adult authors make selections for their pieces which reflect the context of situation as they have come to understand it. As they exchange meanings about their texts through conversation, both authors and audiences come to associate a particular portion of their meaning potential with particular types of authoring events; that is, they form literacy registers. To illustrate, in the Tall Father event (Example 1) it was Victor's use of knowledge from his literacy register which allowed him to predict that Christina might be drawing her father. Because children build their registers for literacy events in conversation with other members of their authoring community, they are to a great extent, shared by those participating in the subculture of the classroom. Thus, audiences are using the knowledge they have formed through classroom interactions as a basis for understanding the *content* and *purposes* of their friends' and teachers' texts, as well as the *processes* used to create them.

Figure 1 illustrates that when participants take on the author and audience roles, each brings to the conversation meanings related to the text being discussed, and each leaves with new meanings as a result of their interaction. The understandings created by the author and audience are partly shared for two reasons. First, as members of the same authoring community the participants have formed similar meaning potentials for this context. Second, the meaning of the text is negotiated through an exchange of "stories" (Rosen, 1984) in conversation. Interpretations are never totally shared, however, because

individuals are constructing meanings based on their personal views of reality which have been formed through past experiences with others, and which bear the unique stamp of those experiences. Therefore, conversation is also a major source of surprises. As individuals express their unique perspectives on ongoing activities, differences in interpretation become apparent. Conversation is an important force in moving children's learning ahead because it presents them with anomalies. It provides opportunities for them to build common meanings as well as to explore the gaps between their meanings and those of others in their community.

Insert Figure 1 about here.

Thus, because children learn about the world from others, the meanings they form are socially created. Literacy learning is social in two senses. First, meanings are social because they are constructed in social contexts through conversation. Because the context of situation, which is itself socially created, is embedded in the meanings constructed, learning reflects the social context in which it occurs. When participants share many experiences -- have many conversations -- the registers they build for these situations are also shared in many respects. Second, learning is social because we understand the world by linking our current experiences to the understandings we have created in the past. Since these meanings were also created in conversation, learning involves building understandings of current conversations by reference to those of the past.

The Social Construction of Literacy Knowledge: An Example

In the preceding section I argued that the exchange of meanings which occurs during conversation leads to the formation of shared understandings about literacy. It is as children interact with one another and their teachers that they build for themselves an understanding of literacy -- that is, *what* meanings literacy might express, *how* they might go about expressing them, and *why* literacy might be socially useful. This knowledge is built over time as they have repeated opportunities to participate together in literacy events. However, the process of knowledge building is frequently so subtle that it is difficult to determine with certainty what has been added to the meaning potential by a particular literacy encounter. However, when a *new* meaning is introduced it is sometimes possible to track this process more closely.

Example 7 provides an opportunity to observe how participants made the staple remover part of their shared literacy register when it was introduced to the writing table for the first time.

Example 7: The Staple Regrabber
Monday, January 20, 1986 (VT 4)

Jared has been working on a figure of a dog with a backpack at the writing table when he discovers a staple remover on the big brown table. Mary, one of his teachers, has left it there after taking the staples from scrap paper donated by the parents.

(1) "What is this?" he asks.

(2) "That's a staple remover," I tell him. "Do you wanta take this staple out? I'll show you how it works." I talk as I demonstrate. "It kind of grabs the staple and takes it out." Christine comes over to watch.

(3) "My dad has one of those," Jared comments as we return to the writing table with the staple remover. When he first tries to use it he positions it so the teeth are on either side of the paper. When he squeezes he punches two holes in his figure. He repositions it correctly and this time it works.

Christina puts a staple in the map she has been making. (4) "Oops! Too far up," she says in mock surprise. She takes the staple remover from Jared. Like Jared, She punches holes in her paper on the first attempt.

(5) "Instead of making it [I motion with my fingers], put it on top of the paper like this to make it grab the staple with its jaws," I suggest. "See? And you squeeze and it'll pull the staple out. Try it!" I say, handing the staple remover back to Christina.

She experiments a bit and gets it to work.

Watching her progress, Jared comments (6) "You know what? This is almost like a dinosaur because it has sharp teeth!" He puts a staple in his dog. When Christine is finished he takes the staple remover and exclaims, "Oh Oh! This is in the wrong place!" He removes it.

Christina staples her map. (7) "Oh Oh! Put it in the wrong place!" she echoes.

Jared and Christina continue taking turns stapling, announcing their "mistakes", and using the staple remover.

(8) "Stapled the wrong place" Christina says as she reaches for the staple remover again. "It grabbed it," she comments. "I call this the grabber."

(9) "That's exactly what it does, grabs staples," I agree.

(10) "We can call it the grab stapler," she suggests. She continues to play with a name for the new piece of equipment. (11) "Staple grabber, grabber. It's a staple grabber." After another turn she works on the name a bit more, (12) "I call this a staple regrabber." On her next turn she comments to herself, (13) "I use the staple regrabber! Is staple regrabber a funny name?"

Sarah has been drawing pictures on napkins at the far side of the table. Now she enters this activity. She staples her napkins together on one side like a book. Jared has the staple remover, so she says (14) "Staple regrabber. I need the staple regrabber. I need the staple regrabber. I need the staple grabber!"

(15) "Staple regrabber," Christina corrects.

When Jared is finished Sarah takes the staple out of her book.

Victor comes to the table and watches Jared using the new tool. (16) "That's a sharp pencil. . . Can I use that sharp pencil?" he says evidently referring to the staple remover. He takes it when Jared is finished.

(17) "You have to put a staple!" Jared tells him taking it back.

Both Jared and Christina continue to work with the staple regrabber until clean up time.

When people engage in conversation they are exchanging meanings about the world. They are defining the world for each other. They are constructing a social reality (Berger & Luckmann, 1966). The opening exchange of Example 7 illustrates the reality creating nature of conversation.

(1) Jared: What is this?
(2) Debbie: That's a staple remover. Do you wanta take this staple out? I'll show you how it works. [physical demonstration of the process.] It kind of grabs the staple and takes it out.

Though participants' reality defining roles are not always this explicit, metaphorically, at least, Jared's question is the one each of us indirectly asks of our conversational partners: "What do you make of this situation?" or "What do you think of my interpretation of the situation?" I answer Jared's question by presenting the meanings I have created in my past experiences with staple removers. In so doing, I introduce him, and the others who are listening, to my socially constructed version of reality.

But I am not the only one who is sharing my understandings of the world. Jared tells me about his meanings for staple removers at utterances (3) and (6), and when Christina enters the conversation she comments on the outcome of her stapling process, (4) "Oops! Too far up!" and reaches for the staple remover. In the context of the ongoing discussion, Jared and I easily understand the informative and pragmatic functions of Christina's dialogue and actions. They might be glossed as follows: (a) When you place a staple in the wrong location, the staple remover can be used to take it out; (2) Putting a staple in the wrong place is a way of legitimizing your request for the staple remover. She uses this strategy again at utterances (7) and (8), inventing a kind of verbal routine for using the staple remover. In the context of their shared activity, Jared quickly understands her meaning. He can easily see that claiming to put a staple in the "wrong place" is a reason for using the staple remover, and at utterance (6) he adopts this verbal routine as part of his own activity.

As she works, Christina also invents a new name for the staple remover -- "staple regrabber." She uses conversation to share her new term and to work toward making it part of the shared register for the group. At utterance (12) she calls attention to the newly invented name, suggesting that the whole group can call the tool the "staple regrabber." Then she tries the term out as she talks to herself. Once again, the context of the activity makes her meaning easily understandable, as Sarah, a heretofore silent participant, demonstrates. When she requests a turn to use the staple remover at (14), she has adopted Christina's new term. However, in the last part of her request (14), she slips and uses the term "staple

grabber." Christina quickly corrects her at (15), emphasizing the correct pronunciation. When Sarah finally gets a turn, she shows that she has been attending to more than just the name of the instrument. She uses it in the socially demonstrated fashion -- to remove a staple from the book she is making. By the end of the event, the name "staple regrabber" is being used by all of the participants. Christina's new term, and most likely other meanings about the function of this tool, have become part of the shared literacy register for the participants in this event. Through conversation and observation of demonstrations, shared literacy knowledge has been constructed and socially negotiated.

I have emphasized several times that I believe it is the familiar context in which this conversation occurs which allows participants to understand the meanings which are being invented and exchanged. But why should context be helpful? Perhaps an analogy to reading will help to answer this question. As we read, it is a common experience to encounter an unknown word. However, having read what comes before and what follows this word, it is often possible to predict what it means. It is the syntactic and semantic context in which the word appears that allows us to make this prediction. In reading, cues from the text and from the social conditions under which the reading takes place help us to activate a register of meanings appropriate to that particular reading situation. From this portion of our already formed meanings we are able to select those that are likely fits for the unknown linguistic item. Context allows us to comprehend interactive situations in much the same way, but the cues available in interaction are even richer. They include language, gesture, body postures, and much more. Because we have built a register for frequently encountered interactive contexts, we can narrow the range of potentially applicable meanings and make predictions about the relation of ongoing activities to our past experiences.

Jared's selection of a literacy register for interpreting this event illustrates the influence of the context of situation and the meanings formed. During this event he talks about two connections between the staple remover and his past experiences: (3) "My dad has one of those."; and (6) "This is almost like a dinosaur because it has sharp teeth!" However, in this context where the field clearly signals the appropriateness of literacy-related meanings for making sense of the event, and where the tenor of his relationship with me encourages literacy-related talk rather than dramatic play, he drops the dinosaur interpretation, and explores, instead, the link to his knowledge about literacy products. Because his register for writing events already includes meanings about attaching papers with staples, the act of

"unstapling" which I demonstrate at utterance (2) can be understood in relation to those already familiar meanings. Jared's choice to explore the connections between the staple remover and his literacy knowledge demonstrates that the meanings formed in any particular event reflect the field, mode, and tenor of that situation; that is, context is embedded in learning.

Other evidence for the influence of the social context on children's literacy learning comes from my observation that both the focus of the activity and the membership of the group at the center made a tremendous difference in the meanings which were formed. Victor's experiences in the Staple Regrabber event (Example 7) are a case in point. Since he was not present at the beginning of the episode when I demonstrated the function and name of the staple remover, nor when Christina developed her name for it, his experience differed considerably from that of Jared, Christina, and Sarah. When he arrived at the table he may have been encountering a staple remover for the first time. Lacking a social demonstration for its name, he selected a meaning from his literacy register and called it a "sharp pencil" at utterance (16) -- probably focusing on the relation between a pencil point and the pointed teeth of the staple remover. When Jared finished using it, Victor took the staple remover and began to punch holes in a blank piece of paper, in much the same way as Christina and Jared had on their first tries. Jared then took the stapler remover back, telling Victor (17) "You have to put a staple!" Rather than pursuing this further, Victor went on to other activities.

Like the other participants in this event, Victor formed meanings about the staple remover through conversation and observation of demonstrations. Having seen Jared using the new tool at the writing table, Victor selected a meaning from that part of his meaning potential which related to literacy tools, and arrived at the name "sharp pencil." When he began to use the staple remover, he recreated the squeezing motion Jared had used, and applied it to paper. Jared, rather than supporting Victor's exploration of the new tool, told him that he was not using it correctly.

Because Victor was introduced to the staple remover under a different set of social circumstances, the meanings he adds to his register are different from those of Jared, Christina, and Sarah. They are socially constructed, none the less. His new meanings about the "sharp pencil" are social because they are formed in interaction with Jared. They are also social because they involve the linking of his past stock of

socially created literacy knowledge to his experience at the table. Victor now knows that there is a new tool to be used with paper, and that he has not used it in the socially appropriate fashion.

For Victor, as well as for Jared, Christina, Sarah, and me, the stapler remover came to be defined by our social experiences with it. This is not to say that each of us has formed exactly the same meanings from this event. Not only did our differing roles afford us different perspectives on the meaning of the staple remover, but we also arrived with a different history of experiences which could be used to interpret the interactions at the table. Bakhtin (1981) has suggested that because language is learned in conversation, each use of a word incorporates the multiple contexts and meanings in which the word has been encountered before. Eco (1979) makes a similar point when he talks of a sign as a textual matrix. He states that "the meaning of a sign *inchoatively* contains all the texts within which that sign can be inserted" (p. 184). He further suggests that it is the context of a particular situation (the ground) which guides the selection of those meanings which actually participate in the process of signification.

Each of the participants in this literacy event understood the staple remover through such a process of meaning construction. For Jared, the staple remover contained the multiple accents of experiences with a staple remover at home, experiences with pictures, models, and movies of dinosaurs, as well as the meanings which were constructed as he talked and observed the rest of us using the staple remover. In this encounter, the writing table context encouraged him to concentrate on the staple remover's uses as part of the technology of literacy. But the dinosaur meaning was still available. It would not have been surprising to see Jared use the staple remover to portray a dinosaur, complete with gnashing teeth, if he were to encounter it in a context such as the block area where imaginary characters and dramatic play were part of the shared register.

For Christina, we know that it was the relation of the action of the staple remover to her experiences with "grabbing" that were highlighted. For Victor, it was the relation between the sharp teeth of the staple remover and a sharp pencil. And for me, one of my most recent experiences with staple removers was reflected in my language at utterance (5): "Make it grab the staple with its jaws." Some weeks before I had been waiting in the xerox room at the University while a secretary removed staples from a stack of papers. She told me that a young visitor to her office had recently dubbed the staple remover with the name, "Jaws." After that, the teaching assistants in her office had begun to refer to it by

that name. Her story brought to mind a movie which was popular some years back about a vicious shark named "Jaws." At the time, I thought the relationship of the staple remover to sharks seemed rather clever, since it is just this "biting" action which is the essence of a staple remover's function. When I talked with the children at the writing table I did not tell this story, but the wording of my description consciously echoed the relationship highlighted in this other story. For me, as for Jared, Christina, and Sarah, the process of meaning construction involved the creation of links between events at the table and other conversations, events, and stories.

To summarize, I have argued that the meaning children create about literacy is social meaning. Because children learn about literacy from other people, there is no other kind. As this episode demonstrates, both teachers' and children's meanings are socially constructed. Participants make sense of their social world by linking their observations to meanings they have formed in the past. The understandings constructed in each literacy event are context specific, but since events share many characteristics of field, mode, and tenor, participants are able to associate portions of their meaning potential with general types of literacy events. Because meanings are systematically related to the contexts in which they are formed, participants are able to make predictions about new events by drawing on their stock of existing meanings associated with similar contexts. As a result of a long history of conversations at the writing and art tables, many of the teachers' and children's meanings about the content, processes, and purposes of literacy are shared.

Co-authoring and Requesting Assistance: Transportation across the Zone of Proximal Development

I began the preceding section by arguing that children in this classroom are learning about literacy by observing demonstrations and exchanging meanings in conversation, and that this is possible because the meanings are embedded in a context of situation which is, for the most part, understandable and familiar. In this sense all the meanings children form are *co-authored meanings*. They are formed first in social exchanges and, thus, reflect the shape of that interaction.

In this classroom, the role of others in mediating children's learning was pervasive, but it was at the same time subtle in comparison to our usual definitions of teaching and learning. For the most part, adults and children engaged in informal conversation when they were at the literacy centers. Instances of

what might be called "direct teaching" were relatively few in comparison with other types of exchanges. There were , however , two interactive situations where the impact of others on literacy learning was less subtle. Both involved children's interactions with more experienced peers or adults. The first group of events was described earlier as *co-authoring*, and involved the conceptualization of a literacy project by a "first author" followed by invitations for others to join in the construction of the text. The second interactive situation of this type involved *requests for assistance*. Here a participant asked another author for help with a text-related problem. In each situation children saw literacy content, processes, and purposes demonstrated in familiar contexts, and were able to construct meanings in collaboration with others which they could not yet construct alone. In Vygotsky's (1978) terms, these were instances where children worked at the far edge of their "zone of proximal development" --"the distance between the actual developmental level as determined by independent problem solving and the level as determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86).

As Bruner (1986) has pointed out, Vygotsky's theory makes a strong case for the importance of social interaction in learning, but fails to make clear the characteristics of interaction which support children in moving beyond the level of their independent learning. Based on his observations of mother-infant interaction, Bruner has suggested that it is the "scaffolding" provided by the adult which allows children to move across the zone of proximal development. He observed that mothers frequently invented routines or formats for interacting with their children in familiar situations such as book reading, then played their roles in subsequent events in a consistent fashion. As the children mastered these routines, the mothers altered the formats so that they remained on the "growing edge of the child's competence" (1986, p. 77). According to Bruner, when adults provide "scaffolding" they serve as "consciousness for two" (p. 75) by controlling the focus of attention, by dividing the task into manageable segments matched to the child's abilities, and by setting up the environment so that children can recognize solutions they would not have been able to accomplish on their own.

My observations of adult-child and child-child interaction during events involving co-authoring and requests for assistance also indicate that the more experienced authors played an organizing role, that their interactions were closely matched to the needs and abilities of their less-experienced co-authors, and that the result was the construction of meanings which would not have been possible for the co-author

to construct alone. However, I want to suggest that "scaffolding," as described above, is an insufficient metaphor to describe the social negotiations which occurred during co-authoring and requests for assistance in this setting. As Harste, Woodward, and Burke (1984) have argued, the notion of scaffolding seems to imply a one-sided control of interactive events where the adult determines the language structures to be used by the child. Though it is likely that Bruner's theory of language learning is more interactive than his choice of metaphors indicates, "the adequacy of the metaphor implied by scaffolding hinges on the questions of who is constructing the edifice" (Searle, 1984,p. 482). The notion of scaffolding seems to neglect the role of children in this process.

In this study, I observed that co-authored events were accomplished not so much by the controlled organization of these events by an expert, as by a mutual exchange of meanings through *conversation*. Though the format of these events may have been introduced by one participant, it was based on routines which had been built in past interactions, and which were functional in this event because other participants agreed to the roles it assigned them and understood the roles it allowed them to assign to others. These events involved not only a two-way exchange of meanings and communication roles through conversation, but also accompanying exchanges of authoring roles as well. By tracking the meanings their partners were constructing in the event and using previously constructed knowledge of shared events, *both* adults and children adjusted their roles to develop and achieve a shared goal. Therefore, when children participated in shared events with authors who had more expertise, both participants worked actively to influence the course of the shared interaction. Both participants were learners.

To summarize, when children work with others to co-author a text, their learning is supported by the familiar context of the activity, by the willingness of the other authors to exchange meanings about the activity, and by the willingness of others to support them in taking on new roles. A similar learning environment is created when children ask for and receive help with their own authoring problems. Because authors are asking for help with their own texts, the context of situation is intimately familiar. Asking and receiving help involves the exchange of meanings about the author's text, as well as a temporary shift in author and audience roles.

I have hypothesized that these events are rich learning experiences for the less-experienced authors because they provide opportunities for them to *experience* the construction of written texts

which are beyond their ability to produce alone. In the process, they see *demonstrations* of more advanced literacy conventions and strategies. As they form hypotheses about the content, processes, and purposes of these events they also have the opportunity to check their understandings through *conversation*. Through such exchanges, children have the opportunity to "grow into the intellectual life of those around them" (Vygotsky, 1978, p. 86).

Educational Implications:

The Power of Linking Conversation, Demonstration, and Authoring

In considering the implications of this study for educational practice, it must first be noted that ethnographic research generates hypotheses which are grounded in the specific context in which the data is collected. Therefore, decisions about the generalizability of the conclusions I have drawn from this data must largely be left to those who wish to apply them to other settings. However, since my observations of the literacy learning of these 3- and 4-year-olds over a period of 8 months has shown them to make great gains in their abilities to author their own texts, I would like to discuss several characteristics of the curricular environment which appear to be especially supportive of this type of learning. (Additional details about the context in which this data was collected may be found in Author, 1986).

My observations in this classroom indicate that informal conversation, observation of demonstrations, and opportunities to engage in authoring were key features of events in which the children and their teachers built shared meanings about literacy. Talk was an important part of most literacy events where children and teachers were authoring their own texts, and these conversations were almost always related to demonstrations -- those the children provided for themselves as they authored their own texts, or those provided by others working at the learning center. It was through *talk* that children explicitly exchanged meanings with their peers and teachers, but it was most frequently the observation of a *demonstration* that fueled these conversations. Demonstrations provided indirect means of learning from others. Conversation allowed children to reintroduce that learning so that it could be socially negotiated. And engagement in authoring allowed children to explore their new ideas in text worlds of their own creation. When linked in this way, conversation, demonstration, and authoring allowed children to learn about the perspectives of others, to experience indirect and direct challenges of their ideas, to construct new meanings, and to apply those meanings in their own texts. Because meanings are never

totally shared even among members of the same authoring community, children encountered differences in perspectives and challenges to their interpretations of events. These situations pushed them to examine, refine, and expand their own thinking about the content, processes, and purposes of literacy. Conversation played a particularly important role in pushing children to create new meanings and to explore and expand their existing ones. Authoring pushed children to refine their hypotheses in texts they invented and controlled.

These are learning outcomes that all educators value. Therefore, it is important to look carefully at characteristics of the interactive environment in this classroom to see why it is so supportive of this type of literacy learning. Five features of the author-audience interactions in this classroom seem to have particularly important educational implications. First, conversation, demonstration, authoring were linked as integral parts of literacy events which are familiar and functional for the participants. This increased the likelihood that authors and audiences would be able to make themselves understood and to understand the meanings of others. If an unfamiliar idea was introduced in conversation or in an author's text, the participants had access to many other sources of information about that concept. The Exclamation Points event (Example 4) provides a good example of this type of contextual support for literacy learning. When I introduced exclamation points as part of my "Get Well" message for one of the nap teachers who was in the hospital, Kira, Hana, and Christina were able to explore the meaning of that punctuation mark in relation to our shared feelings for Carol and our shared understanding of the purpose for using literacy in this situation. They were also able to observe how I used exclamation points in my text, to talk about it, to ask questions about it, to try it out in their own texts, and then to share their new ideas about exclamations points in conversation.

As a teacher, the importance of providing opportunities for children to engage in interactive demonstrations of this type is particularly clear. Frequently we have provided separate opportunities for students to see demonstrations or to hear explanations of literacy processes, but in school, chances to talk with and observe other authors as they work and to create one's own texts are less common. When children are able to talk about literacy in the context of its use in functional classroom activities and to use new ideas in texts of their own choosing, the potential for literacy learning is increased.

A second characteristic of author-audience interactions in this classroom was that the participants were working collaboratively to reach shared meanings. Both authors and audiences were actively tracking the meanings formed by their conversational partners and adjusting their contributions so that they could reach some kind of shared understanding. This mutual tracking and adjustment was demonstrated in Example 2 (Make My Heart) when Kyle revised his request for help and Jared revised the type of help he offered as a result of semantic tracking. The kind of mutual negotiation of meaning which occurred during conversation increased the likelihood that audiences and authors would be able to respond to one another in ways that supported the formation of new meanings about literacy.

A third characteristic of author-audience interactions in this room was that participants exchanged roles frequently. Both children and adults took the roles of author and audience. For example, in one event I acted as audience for Christina as we discussed her plans to make a map showing the way from Bloomington to Washington. Later in the same event as I wrote a note to Victor our roles were reversed. Christina became the audience, and I became the author as she asked about the spelling of Victor's name in my note. In this type of interactive situation, children had the opportunity to learn by watching and asking questions of their peers and teachers, as well as to learn by explaining their authoring activities to others.

Fourth, because children were respected as authors by their teachers and peers, they understood that questions and comments about their work were real requests for information, not tests of their knowledge. This freed them from the need to focus on discovering the teacher's answer and allowed them to use conversation to explore their own "rough draft" ideas. This was illustrated in Ginny's response to my question about her picture:

> Debbie: I bet Ginny is making rainbows with sunshine. Is that right?
> Ginny: I'm making rainbows with a spider. And this is a spider web and these are rainbows. And the rainbows don't like the spider web.

Because in this classroom the work of authoring was respected regardless of the age or skill of the author, conversation became a two-way exchange of meanings rather than a one-way evaluation of knowledge by adults or more experienced peers.

The same attitude of respect for authorship was important in children's learning from demonstrations. A fifth characteristic of author-audience interactions in this classroom was that the authoring activities of teachers and children were viewed as *demonstrations*, not *models*. The basis for

this distinction is the freedom to choose what, if any, parts of another author's activities will be incorporated in one's own text (Harste, Woodward, & Burke, 1984). Since children in this setting were under no constraint to copy the demonstrations of their peers or teachers, they felt free to use elements of demonstrations in new ways in their own texts or, alternately, to stick as close as possible to a demonstration. For example, in the Exclamation Points event (Example 4) mentioned above, Christina made use of my demonstration by including exclamation points in her text, but did not feel constrained to use exclamation points in exactly the same way I had. In the Music and Robots episode (Example 5), however, she responded differently as she watched Katie writing a multicolored musical score and coloring robots. This time Christina used both the content and processes Katie demonstrated, showing us that reproducing elements of a demonstration was also an important learning strategy.

At first, it is puzzling how a classroom environment can at the same time support children's choices to explore new territory in their texts as well as their choices to stick closely to someone else's demonstration. The answer seems to be respect for children's decisions as authors and an understanding of the social nature of learning. The teachers in this classroom consistently supported children's explorations of literacy by responding positively to their texts. They also encouraged children to learn from other members of the classroom community. In this way they built an environment which supported creative thinking at the same time it encouraged children to make their knowledge available to their peers, and to see others as important sources of literacy information. Because teachers and children respected one another as authors, they could present their rough draft attempts at expressing themselves with confidence and acknowledge their need to learn from each other.

Conclusion

As a result of my experiences in this classroom, I have new respect for the learning potential of curricular environments which encourage children to link conversation, demonstration, and authoring in functional contexts. As I have had an opportunity to reflect on the way learning took place during these interactions I have come to see talk and demonstration as inseparable pieces of the social process of learning in this setting. Children were able to learn about writing and drawing, in part, because they were able to explore their ideas verbally. But children were able to explore their ideas verbally, because they were observing demonstrations of literacy in use. Learning occurred as observation, talk, and authoring

were linked to form *interactive demonstrations*; that is, children had opportunities to *observe* another author at work, to *talk* with that person in order to expand and develop their ideas, to *observe* again, and then to *incorporate new ideas in their own texts*.

I now see that conversation played an important role in the way in which the children, the teachers, and I constructed meanings about our experiences in this setting. It was by exchanging meanings in many conversations that we came to construct shared concepts about literacy -- or at least to understand how our meanings differed from those of other members of our authoring community. It was by observing demonstrations that we were able to begin to understand the talk that was part of literacy events. It was this systematic relationship between conversation and demonstration which allowed the children to learn about literacy. And it was the opportunity to author their own texts which gave them personally meaningful reasons for learning about literacy and allowed them to take a new perspective on the demonstrations they observed.

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Table 1

Data Collection and Analysis Procedures

	Data Collection Procedures			Data Analysis Procedures	
	Duration	Focus	Techniques	Focus	Techniques
Phase 1	1 month 4 days/week	Field Entry: Negotiating my role as researcher and teacher Becoming familiar with the setting	Participant/Observation Field notes after exit Collection of artifacts Informal interviews with teachers	Refine methodological procedures for recording field notes, cataloging artifacts Determine range of literacy events Recognize initial patterns in literacy behavior	Weekly reviews of MN & TN Indefinite triangulation Peer debriefing Weekly reviews of FN Weekly reviews of FN
Phase 2	3 months 3 days/week	Developing hypotheses	Participant/Observation Field notes in setting Collection of artifacts Audiotape Photographs Informal interviews with teachers and children Indefinite triangulation	Search for patterns in literacy behavior Develop working hypotheses Construct inventory of working hypotheses Estimate obtrusiveness of new data collection methods Catalogue audiotapes	Bi-weekly reviews of FN Constant comparative Method Intensive review of all FN & TN at end of this Phase Indefinite triangulation Peer debriefing Review MN Record major events & cross reference data sources
Phase 3	2 months 3 days/week	Theoretical sampling to further develop and refine hypotheses.	Participant/Observation Field notes in setting Collection of products Audiotape Photographs Videotape Informal interviews with children and teachers Indefinite triangulation	Refine and develop hypotheses Catalogue VT data Guide theoretical sampling	Weekly reviews of FN Constant comparative method Indefinite triangulation Peer debriefing Record major events and cross-reference data sources Weekly review of FN and VT logs
Phase 4	2 months 2 half days/week	Field Exit: Refine hypotheses	Field notes in setting Indefinite triangulation	Refine and extend hypotheses Check credibility of report Revise report to reflect participants' comments	Review of VT data Transcription of VT data Microsociolinguistic analysis of VT data Constant comparative method applied to VT data Analysis of individuals' literacy learning Searching for negative cases Indefinite triangulation Peer debriefing Member check conferences

Note: MN = methodological notes; TN = theoretical notes, FN = field notes; VT = videotape.

Table 2

Social Interaction Patterns During Self-Selected Literacy Activities

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Producing Individual Texts

1) Interacting with Other Authors: Participants are engaged in creating their own texts, but spend time talking with other authors. Though they maintain "individual" ownership of the finished product, they are often influenced by the comments and texts of others at the center. They also may ask others for assistance in some part of the production of their text.

2) Watching, Interacting with Authors: Participants come to the center and spend time watching and talking with others about the texts underway. They are not currently involved in creating a text themselves.

3) Individual or Parallel Authoring: Participants work either alone, or side by side with others to create their own text. If others are present, interaction is generally limited to brief responses to questions, or quick requests for materials.

4) Exchanging Literacy Products: Participants give products directly to others at the center, or start an interaction by telling the receiver that they "have mail" in their classroom mailbox.

Producing Shared Texts

5) Co-authoring a Single Graphic Text: Participants work together to produce a single product whose ownership will be shared. Co-authors work together to negotiate their roles in text production.

6) Negotiating Shared Meanings About Interaction: Participants are engaged in creating their own texts, but conversation focuses on developing mutual agreement about the meaning of the activities underway. Conversation frequently focuses on commonalities in the preferences and activities of the group members, and on social relationships.

Other Interactions

7) Visiting the Center on "Business": A child or adult stops to talk with a participant about something unrelated to the events at the center.

Table 3

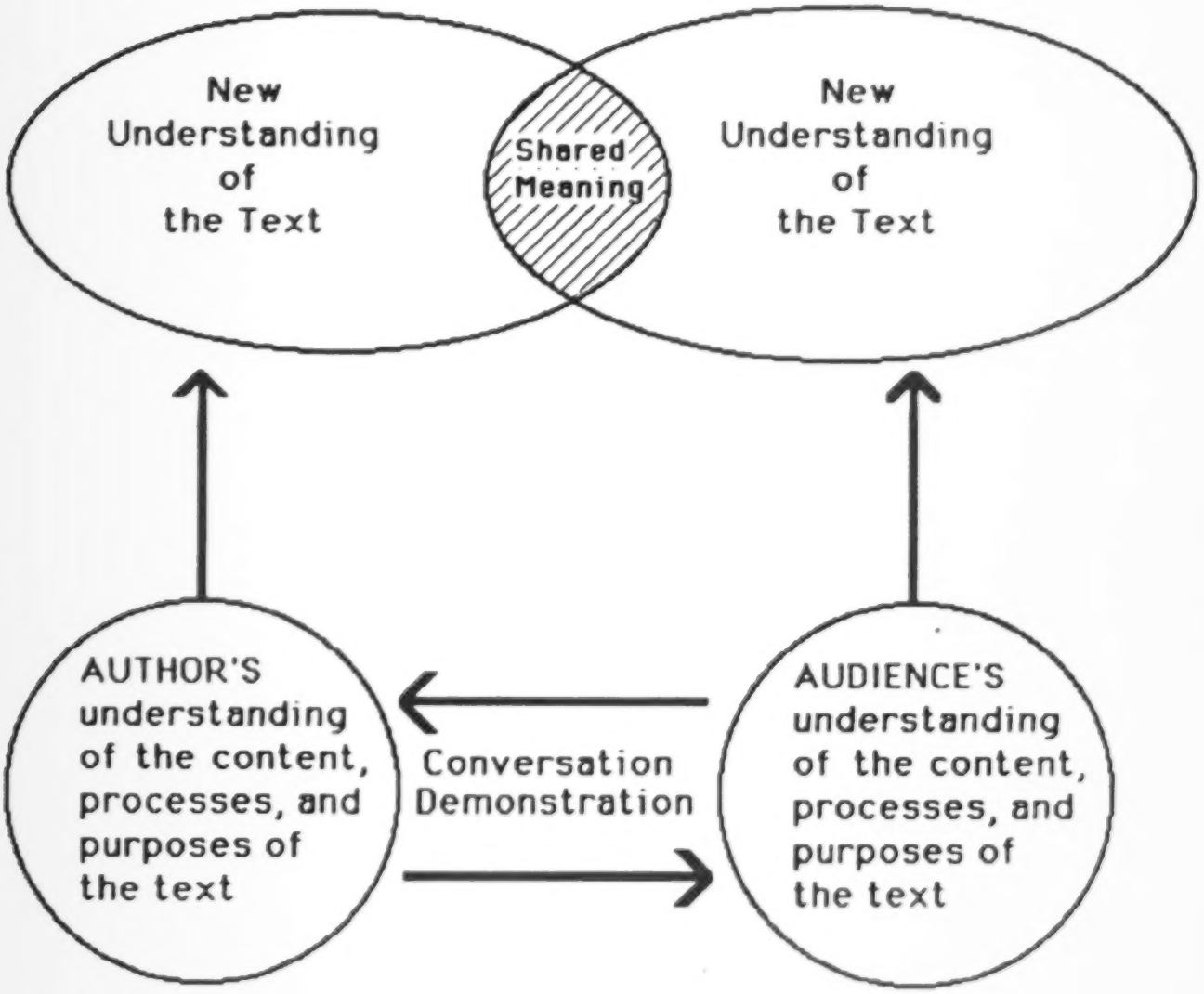
Conversational Roles of Authors and Audiences

Authors	Audiences
Produce written/art/musical text processes.	Observe authors' texts and
1. Spontaneously talk about texts and processes.	1. Ask questions about texts and processes of others.
2. Respond to audience questions.	2. Offer interpretations of authors' texts and processes.
3. Describe in-process authoring activities.	3. Make suggestions for authors' activities.
4. Request assistance from audience.	4. Provide assistance requested by authors.
5. Request evaluation from audience.	5. Evaluate authors' products.
6. Give texts to others.	6. Accept/reject texts from others.
7. Self-directed talk	

Figure Caption

Figure 1: Constructing Meaning in Author-Audience Interactions

CONSTRUCTING MEANING IN AUTHOR-AUDIENCE INTERACTIONS


New Understanding of the Text
Shared Meaning
New Understanding of the Text
AUTHOR'S understanding of the content, processes, and purposes of the text
Conversation Demonstration
AUDIENCE'S understanding of the content, processes, and purposes of the text

Appendix

Transcription Conventions

Emphasis: Where a word or syllable is spoken with extra emphasis, it is underlined. (e.g., "Staple regrabber!")

Simultaneous speech: Where two people speak at one, the overlapping portion of their utterances are enclosed with slash marks. (e.g., /"Right!"/ says Jared. "/Right/" agrees Tokkumma.)

Incompleteness: Where an utterance is interrupted or otherwise left incomplete, this is indicated by "--". (e.g., "It's -- That's musical notes.")

Pausing: When there are noticeable pauses either within or between utterances, this is indicated by a series of dots (e.g., . . .).

Inaudible Speech: Where words or phrases are completely inaudible, this is indicated by a series of asterisks enclosed in parentheses (e.g., (* * *)). The number of asterisks is an estimate of the number of words which were spoken.

Tentative Transcription: When the exact transcription of speech is difficult, this is indicated by enclosing a probable transcription in parentheses. (e.g., "We make somebody (doubledoo).")

Ommitted Conversation: When transcripts have been shortened, this is indicated by a series of carets (e.g., ^ ^ ^).